Unit Title: Computer Fundamentals	Unit Code: BISCF
Level: 5	Learning Hours: 160

Learning Outcomes and Indicative Content:

Candidates will be able to:

1. Describe the parts of a modern PC and how they are configured, using and explaining common terms and abbreviations.

1.1 Identify and specify PC internal components.
1.2 Identify and describe the significant features of the main printed circuit board (motherboard).
1.3 Describe the major technological developments that have confirmed the pre-eminence of the PC in a business environment.

2. Demonstrate awareness of the development of Intel's family of microprocessors (and those of its major competitors) and describe the architecture of a simple 8-bit microprocessor.

2.1 Discuss current trends in microprocessor development.
2.2 Explain the different approaches, by different manufacturers, to microprocessor development and nomenclature.
2.3 Demonstrate an awareness of the major components of a microprocessor and how they interact.
2.4 Explain the benefits associated with the development of multi processor architectures.

3. Describe a range of input/output devices and secondary storage systems and specify appropriate applications for them in the commercial world.

3.1 Differentiate between input, output and hybrid devices.
3.2 Specify these devices using appropriate terminology.
3.3 Demonstrate awareness of the latest technological developments and make recommendations regarding their integration into a commercial environment.

4. Understand the need for good file and disk management and describe how to carry out basic housekeeping in both GUI and command line environments.

4.1 Explain how to create, list, move, copy, delete and recover files and directories (folders) in both environments.
4.2 Develop a well-constructed file storage system.
4.3 Discuss and perform basic housekeeping tasks.

5. Identify risks inherent in the use of computers in a commercial environment and describe how these can be managed in order for the business to remain in existence.

5.1 Understand and implement the principles of risk assessment in a commercial IT environment.
5.2 Discuss the actions required to manage hazards in a commercial IT environment.
5.3 Develop a realistic business contingency plan for a commercial organisation.

6. Describe a typical PC local area network (LAN), its component parts and its relationship to other more extensive networks.

6.1 Describe the major building blocks of a LAN including any security devices or software.
6.2 Describe the major LAN topologies and protocols.
6.3 Explain how a LAN may link to the Internet.

7. Demonstrate an understanding of the major types of processing systems, including client-server and distributed processing.

7.1 Compare and contrast the major processing systems including client-server and distributed processing systems.
7.2 Discuss the licensing and cost implications of competing environments.
7.3 Explain the concept of a virtual server and describe how this differs from a conventional server environment.

8. Describe and contrast different processing methods and their relationships to the various categories of software such as systems, development and applications software.

8.1 Explain the use of and need for operating systems.
8.2 Explain the use of and need for development software, comparing and contrasting the major development environments.
8.3 Explain the use of and need for applications software.
8.4 Discuss the relative merits of competing brands and/or technologies in each of the three environments.

Assessment Criteria:

- Assessment method: written examination
- Length of examination: three hours
- Candidates should answer four questions from a choice of eight, each question carrying equal marks.

Recommended Reading

ABE Study Guide – *Computer Fundamentals*

White R, *How Computers Work* (2005) QUE CORP
ISBN: 0789734249

Capron HL, Johnson JA, *Computers: Tools for an Information Age* (2003), Pearson Education Ltd
ISBN: 0131227246

Robson W, *Strategic Management and Information Systems: An Integrated Approach* (1997), Pearson Education Ltd
ISBN: 0273615912